

Water ... the Absolute Basic

Storage Recommendations

- #1 Store water from the source you're currently using.
- #2 Store in new, thoroughly clean heavy-duty plastic containers with tight-fitting lids. DO NOT STORE IN METAL CONTAINERS. The plastic containers that meet Department of Transportation #34 standard for interstate hauling are best. They range in size from 5-gallon to 55-gallon containers. A five-gallon container weighs 40 lbs., which is a weight most people can carry. A water supply that does not have to be moved can be stored in the larger containers. All sizes are designed to stack. DOT #34's withstand hot and cold temperatures, permitting storage in outside areas. DO NOT STORE IN COMMERCIAL 1-GALLON WATER BOTTLES. The seams can split in prolonged storage.
- #3 Store water away from paint, petroleum, acids, fertilizers, etc. Plastic water containers are permeable membranes designed to breathe.
- #4 ROTATE!! As a means to check quality & shelf life of water supply
- #5 HOW MUCH TO STORE? Aim for "basic maintenance-level" which allows for a few water-utilizing chores such as cooking & preparing food, washing the body, and cleaning utensils. At least 14 gallons per person is required for a 2-week period. If this much storage is not possible for you, then plan to at least have a supply of commercial water bottles on hand; preferably the 16-oz. to 1-liter size hard plastic bottles. Water in a canteen is a good idea for the car.
- #6 PURIFICATION METHODS

Boil at least 10 minutes. Additional purification may be necessary.

Bleach. Be sure that sodium hypochlorite is the only active ingredient in the bleach used for purification. Stir thoroughly. Do not use the water for 30 minutes. Longer exposure to the chlorine may be necessary if the water is cold or dirty (lots of suspended particles).

Iodine. Tincture of iodine (2%) can treat small quantities of water. Pregnant/nursing women or people with thyroid disorders should not ingest iodine-treated water.

Water treatment tablets. In tablet, powder and concentrated liquid form, these alternatives can be purchased at sporting goods stores and specialty suppliers. Drinking water is far more pleasant using these alternatives.

All treated and stored water will taste better if aerated before drinking. Simply pour the water from one container to another.

Basic Bleach Water Treatment Method

Water Quantity	Water Condition	5.25% Sodium Hypochlorite
1 quart	Clear	2 drops
	Cloudy	4 drops
$\frac{1}{2}$ gallon	Clear	4 drops
	Cloudy	8 drops
1 gallon	Clear	8 drops
	Cloudy	16 drops
5 gallons	Clear	$\frac{1}{2}$ teaspoon
	Cloudy	1 teaspoon
120 gallons	Clear	2 ounces
	Cloudy	4 ounces

Mixture should still have a distinct chlorine taste or smell after waiting period. If chlorine smell is not detected, add same dose of the solution to the water and let mixture stand for an additional 15–20 minutes.

Basic Iodine Water Treatment Method

Water Quantity	Water Condition	Quantity of 2% Iodine
1 quart	Clear	3 drops
	Cloudy	6 drops
$\frac{1}{2}$ gallon	Clear	6 drops
	Cloudy	12 drops
1 gallon	Clear	12 drops
	Cloudy	24 drops

See Emergency Water Resources on reverse side ...

Emergency Water Resources Guide

Water Source	Guidelines for Use
Interior Water Sources	
Plumbing system	Best water to use in emergency. Everyone familiar with taste, odor, mineral content & quality of water. Know where to find main water valve for cut-off. Have proper valve key.
water lines	Contain several gallons of water, depending on house size. Easiest water to access. Turn on faucet at lowest point in line. If water doesn't flow, also open the faucet at highest point in line.
hot water heater	Contains 15–40 gallons potable water, depending on size. Open drain faucet at bottom of heater. You may need to screen or filter out sediment before drinking or cooking with it.
tubs & sinks	Fill ahead of time when possible to have additional water on hand.
toilet tanks (<i>not bowls!</i>)	Contain 5–7 gallons in tank. Always treat (boiling is preferred method) before using. <i>Caution: Not potable if commercial disinfectants or cleaners are used in tank.</i>
Appliances	Use appliances for emergency water storage.
refrigerator	Consume cooled and frozen drinks & liquid sources (fruits, vegetables, etc.) first—they become less palatable over time during power outage.
freezer	Ice cubes provide some drinking water; may also be important for first aid or to preserve food longer.
water cooler, clothes washer, tubs, buckets, pots & pans	Fill to capacity for additional reserves.
Water bed	<i>Controversial storage source.</i> To use water bed water for emergency purposes, follow these requirements: (1) use only a new mattress (2) fill mattress with fresh tap water (3) add 2 ounces bleach per 120 gallons of water (<i>do not use toxic algae inhibitor solution!</i>) (4) rotate water at least yearly (5) test 3–4 times yearly for algae & toxins (6) all water bed water must be boiled <i>before</i> using it
Exterior Water Sources	
Yard	Water hoses, buckets, barrels of rainwater, puddles, ditches & troughs may contain water.
water hoses	Suspect contamination if hose end is in bucket, barrel, ditch, or puddle. Hoses lying on the ground may have siphoned contaminated water.
hot water spa or swimming pool	<i>Controversial source.</i> Could provide both emergency source and long-term storage. Use for nondrinking purposes. If required for drinking or cooking, treat and boil as contaminated.
Precipitation	Rain and snow provide water. If caught in clean containers, may be used without treatment. Otherwise, treat as contaminated water.
rainwater	Collect in bowls, pans, buckets, barrels & storage cisterns. Treat <i>all</i> water not caught in clean containers.
snow	First snow to fall contains environmental contaminants. Use only clean-fallen snow as a clean water source. For old snowfall, remove "crust" and use protected snow underneath for clean water use. If not sure of quality, treat as contaminated.
Surface water lakes, streams, ponds, rivers	Collect water and process: (1) find a sandy spot within 1' –6' of water's edge; (2) dig hole 12" below the water level; (3) wait for water to seep into hole; (4) let suspended particles (mud) settle; (5) dip out clear water carefully to avoid transferring mud. Water may be filtered through sand, grass, charcoal, field filtration unit, or use several layers of cloth to remove larger debris. Treat all surface water as contaminated.
Groundwater	Puddles, ditches, and any ground depression can contain water. All groundwater sources must be treated as contaminated.
well water	Unless used as primary water source, test before using. Check for contamination after any unusual disturbance to area.
natural spring	Normally potable unless inundated by flood waters or recharge zone contaminated by oil, chemical spills, dead animals, etc. However, if water is not tested, treat as contaminated.